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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,967	07/21/2003	Ioana M. RizoIU	BI9001DIV2CON	6283

7590 11/22/2006  
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EXAMINER

SHAY, DAVID M

ART UNIT	PAPER NUMBER
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3735

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/624,967	<b>Applicant(s)</b> RIZOIU ET AL.	
	<b>Examiner</b> david shay	<b>Art Unit</b> 3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on September 7, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 69-94 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 69-94 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 7, 2006 has been entered.

With regard to the applicant's statements concerning the contents of the originally filed parent application, the examiner has included a copy of the originally filed drawing sheet containing Figure 5 from U.S. Patent Application 08/985,563, the immediate parent of the instant application (note the date stamp along the left margin, bearing both the filing date and the application number). The examiner had been unable to locate any element 75 in this Figure, thus the drawing objection and non-entry of the proposed correction filed August 7, 2006 has been maintained. As to the argument that because prior art drawings must be evaluated for what they reasonably disclose and suggest..." the examiner respectfully notes firstly that the passage applicant reproduces is related to features which are "unintended or undisclosed" in the specification. Clearly this cannot be a basis upon which a disclosure of a feature, for 112 first paragraph purposes rests. It is an anathema to 112 first paragraph to assert that a feature that is unintended can then be asserted to be fully disclosed by an illustration. Secondly, and more to the point, the instant structure (i.e. nozzle 72) is disclosed in the specification. The pertinent portion of the originally filed disclosure states "The atomizer for generating atomized fluid particles comprises a nozzle 71 *which may be interchanged with other nozzles* (not shown) for obtaining various spatial distributions of the atomized fluid particles, according to the type of cut desired. A second nozzle 72, shown in phantom lines, may also be used" (emphasis added). It is

clear that the passage is discussing using either interchangeable nozzles to provide the various distributions, or a second nozzle (nozzle 72) may also be used to provide this second distribution, without having to interrupt the operation to exchange nozzles. The originally filed disclosure is completely silent regarding any simultaneous use of multiple nozzles nor any control discussed for switching between single nozzle and dual nozzle operation. Thus the examiner finds no evidence in the originally filed disclosure supporting the claim language which has been objected to.

Beginning at the first full paragraph on page 8 of the instant response, applicant asserts that the previous office action “appears to acknowledge that the current application, which is a divisional application of U.S. patent No. 5,741,247 to Rizoio et al. (the ‘256 patent), teaches the outputting of atomized fluid particles from a plurality of atomizers.” Regarding the issue of any acknowledgement of the teachings of the originally filed disclosure, the examiner notes that the previous office action acknowledges that the instant application currently *claims* “the outputting of atomized fluid particles from a plurality of atomizers.” However, the examiner cannot locate any portion of the previous office action that indicates that the originally filed disclosure of the instant application contains such a teaching. Quite to the contrary, by the examiner’s reading, the previous office action contains a new matter rejection based on this claim language, and as such clearly asserts that the intellectual property covered by this claim language is not present in the originally filed disclosure. Thus the arguments set forth on pages 8-13 of the instant response, which are wholly based on applicant’s erroneous perception of the assertions in the previous office action – i.e. that the acknowledging that certain language in the amended claims

is somehow an admission that the disputed material is in the originally filed disclosure – are not convincing.

With respect to the claim for priority, with the instant RCE filed after amendment to the specification, which amendment is required 35 U.S.C. 120 (see MPEP 201.11) and must be timely filed (e.g. within four months of the filing date of the application, see 37 C.F.R.

1.78(a)(2)(ii)), the claim for priority to the two parent applications has been perfected and Rizoiu et al ('256) is no longer prior art.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “user control accepting a user input which specifies cutting efficiency”; the “outputting atomized fluid particles from a plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers is different from an angle of incidence from a second one of the plurality of atomizers”; “the fiber guide tube is disposed between the first atomizer and the second atomizer”; “the output axes of all point from the respective atomizers to a general vicinity of the interaction zone”; “the output axes intersect a longitudinal axis of the fiber guide within the interaction zone”; “wherein atomized fluid particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers”; “the output axes a first one of the plurality of atomizers is not parallel to an output axis of a second one of the plurality of atomizers”; “wherein atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone”; “a dial for controlling the repetition rate of the electromagnetic energy”; “a dial for controlling the average power of the electromagnetic energy”; “wherein the plurality of atomizers is two atomizers”;

“the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone”; and “the output axes intersect in a general vicinity of the path near or in the interaction zone” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The amendment filed February 7, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: “outputting atomized fluid particles from a plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers is different from an angle of

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incidence from a second one of the plurality of atomizers”; “the fiber guide tube is disposed between the first atomizer and the second atomizer”; “the output axes of all point from the respective atomizers to a general vicinity of the interaction zone”; “the output axes intersect a longitudinal axis of the fiber guide within the interaction zone”; “wherein atomized fluid particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers”; “the output axes a first one of the plurality of atomizers is not parallel to an output axis of a second one of the plurality of atomizers”; “wherein atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone”; “a dial for controlling the repetition rate of the electromagnetic energy”; “a dial for controlling the average power of the electromagnetic energy”; “wherein the plurality of atomizers is two atomizers”; “the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone”; and “the output axes intersect in a general vicinity of the path near or in the interaction zone”.

Applicant is required to cancel the new matter in the reply to this Office Action.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 68-94 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed disclosure is silent on “outputting atomized fluid particles from a plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers”; “an

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angle of incidence from a first one of the plurality of atomizers is different from an angle of incidence from a second one of the plurality of atomizers”; “the fiber guide tube is disposed between the first atomizer and the second atomizer”; “the output axes of all point from the respective atomizers to a general vicinity of the interaction zone”; “the output axes intersect a longitudinal axis of the fiber guide within the interaction zone”; “wherein atomized fluid particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers”; “the output axes a first one of the plurality of atomizers is not parallel to an output axis of a second one of the plurality of atomizers”; “wherein atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone”; “a dial for controlling the repetition rate of the electromagnetic energy”; “a dial for controlling the average power of the electromagnetic energy”; “wherein the plurality of atomizers is two atomizers”; “the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone”; and “the output axes intersect in a general vicinity of the path near or in the interaction zone”.

Claims 69-94 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the claims the exact meaning of the term “placing a peak concentration of electromagnetic energy” is unclear, as the term lacks positive antecedent basis in the originally filed disclosure. For the purposes of examination, this term will be read as “a concentration of energy which is higher than the concentration of energy outside of the interaction zone”.



Claims 69-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizoïu et al (SPIE 1994 "Morphological..."). Rizoïu et al (SPIE 1994 "Morphological...") teaches the application of a water and air spray with infra red laser energy but does not teach a plurality of atomizers. It would have been obvious to the artisan or ordinary skill to employ a plurality of atomizers to produce the fluid particles in the method of Rizoïu et al (SPIE 1994 "Morphological..."), since this is not critical; is well within the skill of one having ordinary skill in the art; provides no unexpected result; and would enable varying the density of particles while still maintaining the control over the size distribution thereof, thus producing a method such as claimed.

Claims 69-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizoïu et al (SPIE 1994 "New Laser...."). Rizoïu et al (SPIE 1994 "New Laser....") teaches the application of a water and air spray with infra red laser energy. but does not teach a plurality of atomizers. It would have been obvious to the artisan or ordinary skill to employ a plurality of atomizers to produce the fluid particles in the method of Rizoïu et al (SPIE 1994 "New Laser...."), since this is not critical; is well within the skill of one having ordinary skill in the art; provides no unexpected result; and would enable varying the density of particles while still maintaining the control over the size distribution thereof, thus producing a method such as claimed.

Claims 69-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizoïu et al (DENT 1994). Rizoïu et al (DENT 1994) teaches the application of a water and air spray with infra red laser energy but does not teach a plurality of atomizers. It would have been obvious to the artisan or ordinary skill to employ a plurality of atomizers to produce the fluid particles in the method of Rizoïu et al (DENT 1994), since this is not critical; is well within the skill of one

having ordinary skill in the art; provides no unexpected result; and would enable varying the density of particles while still maintaining the control over the size distribution thereof, thus producing a method such as claimed.

Claims 69-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizoiu et al (SPIE 1993). Rizoiu et al (SPIE 1993) teaches the application of a water and air spray with infra red laser energy but does not teach a plurality of atomizers. It would have been obvious to the artisan or ordinary skill to employ a plurality of atomizers to produce the fluid particles in the method of Rizoiu et al (SPIE 1993), since this is not critical; is well within the skill of one having ordinary skill in the art; provides no unexpected result; and would enable varying the density of particles while still maintaining the control over the size distribution thereof, thus producing a method such as claimed.

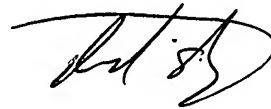
Applicant's arguments with respect to claims 69-94 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to david shay whose telephone number is (571) 272-4773. The examiner can normally be reached on Tuesday through Friday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II, can be reached on Monday, Tuesday, Wednesday, Thursday, and Friday. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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